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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

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January 23, 1991

TO: Holland Shepherd, Permit Lead

FROM: Tony Gallegos, Reclamation Engineer *aa*

RE: Review of Notice of Intention to Commence Large Mining Operations,  
Georgia Pacific, San Rafael Quarry, M/015/050, Emery County, Utah

I have completed my review of the above mentioned NOI. My comments are listed below under the respective rule reference.

### R613-004-105. Maps, Drawings and Photographs.

The submitted surface facilities map is of an adequate scale (1" = 200'), however, it does not show the proposed drainage control structures mentioned in the plan. The operator has indicated that a total area of approximately 33 acres will be disturbed over the life of the mine. According to the measurements taken from the map, the total disturbed area for the life of the mine is approximately 13 acres. These two figures do not agree and will need to be clarified by the operator. Perhaps the map has been reduced from the original size or the scale shown is not correct.

### R613-004-106. Operation Plan.

The plan does not include information regarding the depth to groundwater nor an adequate description of the erosion control structures with respect to design and location. This information must be provided before the NOI can be approved.

The plan does not mention whether any topsoil material has been salvaged from the turnaround and quarried areas. The operator should provide this information.

### R613-004-107. Operation Practices.

The plan mentions the placement of safety berms above the highwalls, but no description of these berms is provided. Design drawings and/or a verbal description

of these berms should be provided. The plan calls for most of the pit highwalls to be regraded to a 3:1 slope upon reclamation. The operator should identify which highwalls will not be regraded to 3:1 and provide justification for these areas. It is unclear what the configuration of these highwalls will be before this regrading, (i.e. 40 feet high with no bench, or 20 feet high with a bench x-feet wide and another 20 feet down). This configuration will have an effect on the Division's estimate for reclaiming the highwalls and should be provided.

**R613-004-111. Reclamation Practices.**

Reclamation is proposed to be carried on concurrently as the mining operation progresses. The reclamation plan includes four basic steps: 1) Clean-up and removal; 2) backfill, grade and contour; 3) soil redistribution and stabilization, and 4) revegetation. In addition to these steps, the pit floor(s) and roads will need to be ripped to a depth of at least 12 inches prior to the soil redistribution. The erosion control structures will also need to be reclaimed if they are constructed. In general, the reclamation plan should include a more detailed description of the reclamation activities. For example, "Backfilling the pit highwalls, then regrading to 3:1 slopes and performing final gradework to blend in with the surrounding contours."

The operator has provided no information regarding the volume of topsoil materials to be salvaged. This information will affect the reclamation cost estimate as well as the revegetation success at the site and should be provided.

**R613-004-113. Surety.**

The operator has provided a reclamation cost estimate of \$450/acre to perform the four basic reclamation steps outlined above. This does not include the cost of ripping the pit floor(s) and roads, or reclaiming any erosion control structures.

An adequate reclamation cost estimate cannot be calculated by the Division until the operator provides the information requested. Namely, a response to the accuracy of the map scale, estimated amounts of topsoil materials to be salvaged for use in reclamation, and a description of the highwall configuration prior to final reclamation.



GEORGIA-PACIFIC  
M/015/050  
SAN RAFAEL QUARRY

N

S24  
T22S  
R8E

S19  
T22S  
R9E

Range Line

1" = 200'

0 100 200 300 400

1/22/91

HOLLAND,  
HERE'S A COPY OF MY ACREAGE  
MEASUREMENTS - F.V.I.

(BLM INFO SAYS 30 ACRES (?))

Tony

OLD  
PIT

GRADED SHALE HILL  
0.23 ACRE

Storage  
Turnaround  
1.65 ACRE

ACCESS  
ROAD

Quarried  
Area  
0.41  
ACRE

STRIPPED  
AREAS

STRIPPED AREA  
1.99 ACRE

ENTIRE PIT  
INCLUDES QUARRIED &  
STRIPPED  
11.27 ACRE

COUNTY ROAD

MOORE ROAD

18-16-17 STRIP - 1.15 ACRE  
w/OUT BERM

30-  
DRY WASH

BERM AREA  
ONLY  
0.81 ACRE